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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		<b>ATTORNEY'S DOCKET NUMBER</b> 2842.43US01
INTERNATIONAL APPLICATION NO. PCT/JP2004/010232	INTERNATIONAL FILING DATE 16 July 2004	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>107565012</b>
TITLE OF INVENTION PHOTONIC CRYSTAL WAVEGUIDE, HOMOGENEOUS MEDIUM WAVEGUIDE, AND OPTICAL DEVICE		
APPLICANT(S) FOR DO/EO/US Shigeo KITAKA, Kazuaki OYA, Keiji TSUNETOMO		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li><input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li><input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li><input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li><input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
<b>Items 11 to 20 below concern document(s) or information included:</b> <ol style="list-style-type: none"> <li><input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li><input checked="" type="checkbox"/> A preliminary amendment.</li> <li><input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li><input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li><input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> </ol>		

U.S. APPLICATION NO. (if known, see 37 CFR 1.15)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
<b>107565012</b>	PCT/JP2004/010232	2842.43US01

## 20. Other items or information:

Copy of International Search Report for PCT/JP2004/010232 (with English version); Return Postcard.

The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....				\$ 300	
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))  If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). .... \$0 All other situations.....\$200				\$ 200.00	
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))  If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). .... \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....\$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB.....\$400 All other situations.....\$500				\$ 400.00	
<b>TOTAL OF 21, 22 and 23 =</b>				\$900.00	
<input checked="" type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
223 - 100 =	123 /50 =	3	x \$250	\$ 750.00	
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	58 - 20 =	38	x \$ 50	\$ 1,900.00	
Independent claims	16 - 3 =	13	x \$200	\$ 2,600.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360	\$
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ 6,150.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.					
				<b>SUBTOTAL =</b>	\$ 6,150.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				+	\$
				<b>TOTAL NATIONAL FEE =</b>	\$ 6,150.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$
				<b>TOTAL FEES ENCLOSED =</b>	\$ 6,150.00
				<b>Amount to be refunded:</b>	\$
				<b>Amount to be charged</b>	\$

10/5/2012

IAP15 Rec'd PCT/PTO 18 JAN 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007, OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a.  A check in the amount of \$ 6,150.00 to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 16-0631. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.**

SEND ALL CORRESPONDENCE TO:

Douglas J. CHRISTENSEN  
Patterson, Thuente, Skaar & Christensen, P.A.  
4800 IDS Center  
80 South 8th Street  
Minneapolis, Minnesota 55402



SIGNATURE

Erik M. Drange

NAME

57,750

REGISTRATION NUMBER

10/565012  
IAP15 Rec'd PCT/PTO 18 JAN 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PCT RECEIVING OFFICE (RO/US)

In re the application of:

Attorney Docket No.: 2842.43US01

Shigeo Kittaka et al.

Application No.: Unknown

Filed: *Of Even Date*

For: PHOTONIC CRYSTAL WAVEGUIDE, HOMOGENEOUS MEDIUM  
WAVEGUIDE, AND OPTICAL DEVICE

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SUBMISSION OF DOCUMENTS

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Enclosed for filing in the above-identified application are the following documents:

1. Certificate of Express Mailing;
2. Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Filing Under 35 U.S.C. 371 (3 pgs.);
3. English translation of patent application (223 pgs.);
4. Copy of front page of PCT Publication No. WO 2005/008305 A1 (2 pgs.);
5. Preliminary Amendment (30 pgs.);
6. Copy of International Search Report (4 pgs.);
7. Check in the amount of \$6,150.00; and
8. Return Postcard.

Respectfully submitted,



Erik M. Drange  
Registration No. 57,750

Patterson, Thuente, Skaar & Christensen, P.A.  
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CERTIFICATE OF EXPRESS MAIL

"Express Mail" mailing label number EV494287782US. Date of Deposit: January 18, 2005. I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Doris Whitcomb  
Name of Person Making Deposit

  
Signature